

2008 Honda Civic EX

2006-08 ENGINE PERFORMANCE EVAP System (K20Z3) - Civic (Except GX & Si)

2006-08 ENGINE PERFORMANCE

EVAP System (K20Z3) - Civic (Except GX & Si)

COMPONENT LOCATION INDEX

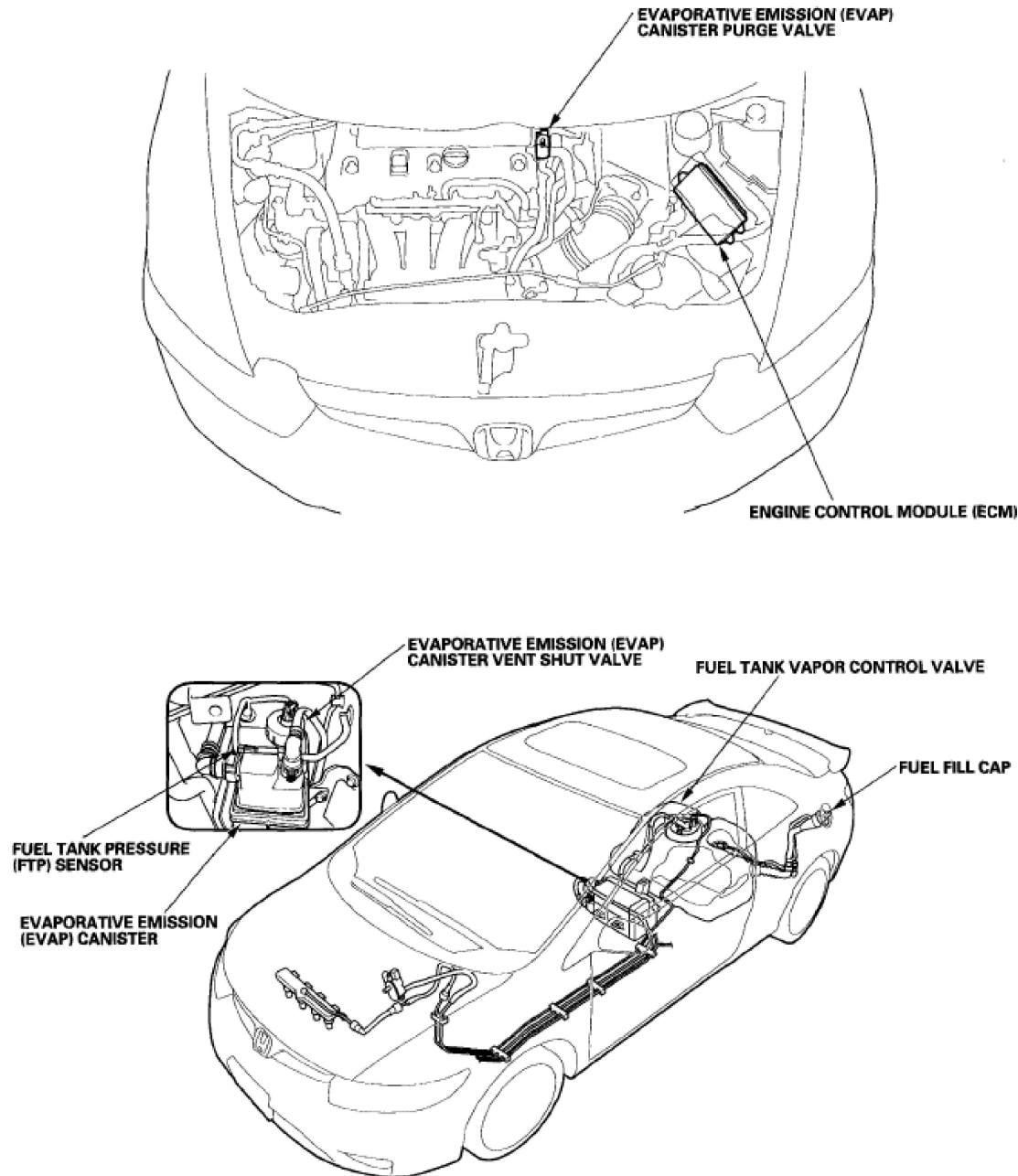


Fig. 1: Identifying EVAP System Component Location
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC TROUBLESHOOTING

DTC P0443: EVAP CANISTER PURGE VALVE CIRCUIT MALFUNCTION

Special Tools Required

Vacuum pump/gauge, 0-30 in.Hg, Snap-on YA4000A or equivalent, commercially available

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Start the engine. Hold the engine speed at 3,000 rpm without load (in neutral) until the radiator fan comes on, then let it idle.
4. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0443 indicated?

YES - Go to step 5.

NO - Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the EVAP canister purge valve and the ECM.

5. Turn the ignition switch OFF, and allow the engine to cool below 140°F (60°C).
6. Disconnect the vacuum hose (A) from the purge valve (B) in the engine compartment, and connect a vacuum pump/gauge, 0-30 in.Hg, to the hose.

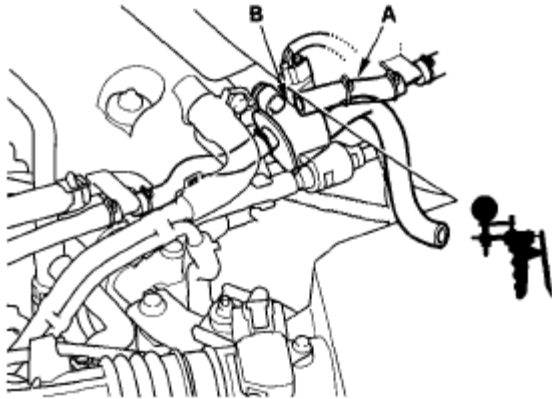


Fig. 2: Disconnecting Vacuum Hose From Purge Valve
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Start the engine, and let it idle.

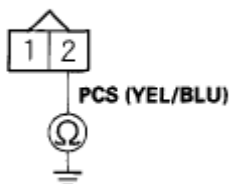
Is there vacuum?

YES - Go to step 8.

NO - Go to step 14.

8. Turn the ignition switch OFF.
9. Disconnect the EVAP canister purge valve 2P connector.
10. Check for continuity between EVAP canister purge valve 2P connector terminal No. 2 and body ground.

**EVAP CANISTER PURGE VALVE
2P CONNECTOR**



Wire side of female terminals

Fig. 3: Checking Continuity Between EVAP Canister Purge Valve 2P Connector Terminal No. 2 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

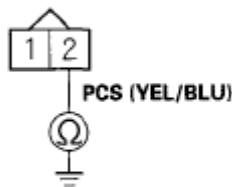
Is there continuity?

YES - Go to step 11.

NO - Go to step 23.

11. Jump the SCS line with the HDS.
12. Disconnect ECM connector B (44P).
13. Check for continuity between EVAP canister purge valve 2P connector terminal No. 2 and body ground.

**EVAP CANISTER PURGE VALVE
2P CONNECTOR**



Wire side of female terminals

Fig. 4: Checking Continuity Between EVAP Canister Purge Valve 2P Connector Terminal No. 2 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

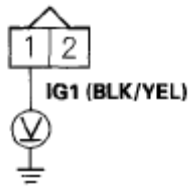
Is there continuity?

YES - Repair short in the wire between the EVAP canister purge valve and the ECM (B3), then go to step 24.

NO - Go to step 30.

14. Turn the ignition switch OFF.
15. Disconnect the EVAP canister purge valve 2P connector.
16. Turn the ignition switch ON (II).
17. Measure voltage between EVAP canister purge valve 2P connector terminal No. 1 and body ground.

**EVAP CANISTER PURGE VALVE
2P CONNECTOR**



Wire side of female terminals

Fig. 5: Measuring Voltage Between EVAP Canister Purge Valve 2P Connector Terminal No. 1 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 18.

NO - Repair open in the wire between the EVAP canister purge valve and the No. 3 ALTERNATOR (10 A) fuse in the under-dash fuse/relay box, then go to step 24.

18. Turn the ignition switch OFF.
19. Jump the SCS line with the HDS.
20. Disconnect ECM connector B (44P).
21. Check for continuity between ECM connector terminal B3 and EVAP canister purge valve 2P connector terminal No. 2.

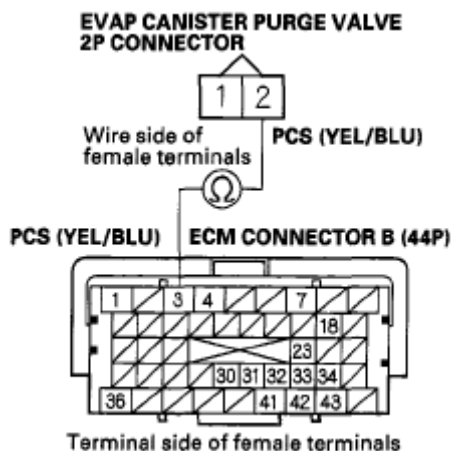


Fig. 6: Checking Continuity Between ECM Terminal B3 And EVAP Canister Purge Valve 2P Terminal No. 2

Courtesy of AMERICAN HONDA MOTOR CO., INC.

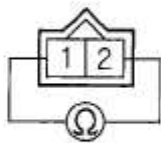
Is there continuity?

YES - Go to step 22.

NO - Repair open in the wire between the EVAP canister purge valve and the ECM (B3), then go to step 24.

22. At the valve side, measure resistance between EVAP canister purge valve 2P connector terminals No. 1 and No. 2.

**EVAP CANISTER PURGE VALVE
2P CONNECTOR**



Terminal side of male terminals

Fig. 7: Measuring Resistance Between EVAP Canister Purge Valve 2P Connector Terminals No. 1 And 2

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 25 ohms at room temperature?

YES - Go to step 30.

NO - Go to step 23.

23. Replace the EVAP canister purge valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**).
24. Reconnect all connectors.
25. Turn the ignition switch ON (II).
26. Reset the ECM with the HDS.

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27. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
28. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0443 indicated?

YES - Check for poor connections or loose terminals at the EVAP canister purge valve and the ECM, then go to step 1.

NO - Go to step 29.

29. Monitor the OBD STATUS for DTC P0443 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 28, go to the indicated DTC's troubleshooting.

NO - If the screen indicates FAILED, check for poor connections or loose terminals at the EVAP canister purge valve and the ECM, then go to step 1. If the screen indicates EXECUTING or OUT OF CONDITION, keep idling until a result comes on.

30. Reconnect all connectors.
31. Update the ECM if it does not have the latest software (see **UPDATING THE ECM**), or substitute a known-good ECM (see **SUBSTITUTING THE ECM**).
32. Start the engine, and let it idle.
33. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0443 indicated?

YES - Check for poor connections or loose terminals at the EVAP canister purge valve and the ECM. If the ECM was updated, substitute a known-good ECM (see **SUBSTITUTING THE ECM**), then go to step 32. If the ECM was substituted, go to step 1.

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NO - Go to step 34.

34. Monitor the OBD STATUS for DTC P0443 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - If the ECM was updated, troubleshooting is complete. If the ECM was substituted, replace the original ECM (see **ECM REPLACEMENT**). If any other Temporary DTCs or DTCs were indicated in step 33, go to the indicated DTC's troubleshooting.

NO - If the screen indicates FAILED, check for poor connections or loose terminals at the EVAP canister purge valve and the ECM. If the ECM was updated, substitute a known-good ECM (see **SUBSTITUTING THE ECM**), then go to step 32. If the ECM was substituted, go to step 1. If the screen indicates EXECUTING or OUT OF CONDITION, keep idling until a result comes on.

DTC P0451: FTP SENSOR CIRCUIT RANGE/PERFORMANCE PROBLEM

NOTE:

- Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).
- If DTC P2422 is stored at the same time as DTC P0451, troubleshoot DTC P2422 first, then recheck for DTC P0451.

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Start the engine, and let it idle 1 minute.
4. Monitor the OBD STATUS for DTC P0451 in the DTCs MENU with the HDS.

Does the screen indicate FAILED?

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YES - Go to step 5.

NO - If the screen indicates **PASSED**, intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor and the ECM. If the screen indicates **NOT COMPLETED**, keep idling until a result comes on.

5. Turn the ignition switch OFF.
6. Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**).
7. Turn the ignition switch ON (II).
8. Reset the ECM with the HDS.
9. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
10. Start the engine, and let it idle 1 minute.
11. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0451 indicated?

YES - Check for poor connections or loose terminals at the FTP sensor and the ECM, then go to step 1.

NO - Go to step 12.

12. Monitor the OBD STATUS for DTC P0451 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 11, go to the indicated DTC's troubleshooting.

NO - If the screen indicates **FAILED**, check for poor connections or loose terminals at the FTP sensor and the ECM, then go to step 1. If the screen indicates **NOT COMPLETED**, keep idling until a result comes on.

DTC P0452: FTP SENSOR CIRCUIT LOW VOLTAGE

NOTE: Before you troubleshoot, record all freeze data and any on-

board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF.
4. Remove the fuel fill cap.
5. Turn the ignition switch ON (II).
6. Check the FTP SENSOR in the DATA LIST with the HDS.

Is about - 7.3 kPa (-2.16 in.Hg, - 55 mmHg), or 0.3 V or less indicated?

YES - Go to step 10.

NO - Go to step 7.

7. Install the fuel fill cap.
8. Start the engine.
9. Monitor the OBD STATUS for DTC P0452 in the DTCs MENU with the HDS.

Does the screen indicate FAILED?

YES - Go to step 10.

NO - If the screen indicates PASSED, intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor and the ECM. If the screen indicates NOT COMPLETED, go to step 4 and recheck.

10. Turn the ignition switch OFF.
11. Disconnect the FTP sensor 3P connector.
12. Turn the ignition switch ON (II).
13. Check the FTP SENSOR in the DATA LIST with the HDS.

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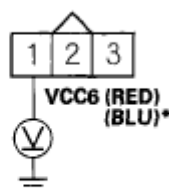
Is about 7.3 kPa (2.15 in.Hg, 54.7 mmHg) or 4.90 V or more indicated?

YES - Go to step 24.

NO - Go to step 14.

14. Measure voltage between FTP sensor 3P connector terminal No. 1 and body ground.

FTP SENSOR 3P CONNECTOR



Wire side of female terminals

*: 4-door

Fig. 8: Measuring Voltage Between FTP Sensor 3P Connector Terminal No. 1 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES - Go to step 20.

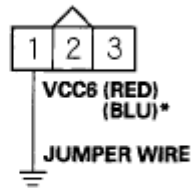
NO - Go to step 15.

15. Turn the ignition switch OFF.
16. Jump the SCS line with the HDS.
17. Disconnect ECM connector A (44P).
18. Connect FTP sensor 3P connector terminal No. 1 to body ground with a jumper wire.

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FTP SENSOR 3P CONNECTOR



Wire side of female terminals

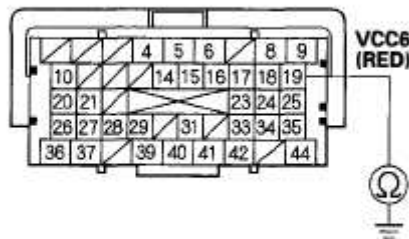
*: 4-door

Fig. 9: Connecting FTP Sensor 3P Connector Terminal No. 1 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

19. Check for continuity between ECM connector terminal A19 and body ground.

ECM CONNECTOR A (44P)



Terminal side of female terminals

Fig. 10: Checking Continuity Between ECM Connector Terminal A19 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

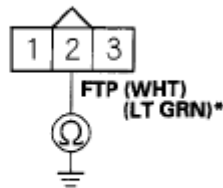
Is there continuity?

YES - Go to step 32.

NO - Repair open in the wire between the ECM (A19) and the FTP sensor, then go to step 26.

20. Turn the ignition switch OFF.
21. Jump the SCS line with the HDS.

22. Disconnect ECM connector A (44P).
23. Check for continuity between FTP sensor 3P connector terminal No. 2 and body ground.

FTP SENSOR 3P CONNECTOR

Wire side of female terminals

*: 4-door

Fig. 11: Checking Continuity Between FTP Sensor 3P Connector Terminal No. 2 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short in the wire between the ECM (A26) and the FTP sensor, then go to step 26.

NO - Go to step 32.

24. Turn the ignition switch OFF.
25. Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**).
26. Reconnect all connectors.
27. Turn the ignition switch ON (II).
28. Reset the ECM with the HDS.
29. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
30. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0452 indicated?

YES - Check for poor connections or loose terminals at the FTP sensor and the ECM, then go to step 1.

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NO - Go to step 31.

31. Monitor the OBD STATUS for DTC P0452 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 30, go to the indicated DTC's troubleshooting.

NO - If the screen indicates FAILED, check for poor connections or loose terminals at the FTP sensor and the ECM, then go to step 1. If the screen indicates NOT COMPLETED, keep idling until a result comes on.

32. Reconnect all connectors.
33. Update the ECM if it does not have the latest software (see **UPDATING THE ECM**), or substitute a known-good ECM (see **SUBSTITUTING THE ECM**).
34. Start the engine and let it idle.
35. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0452 indicated?

YES - Check for poor connections or loose terminals at the FTP sensor and the ECM. If the ECM was updated, substitute a known-good ECM (see **SUBSTITUTING THE ECM**), then go to step 34. If the ECM was substituted, go to step 1.

NO - Go to step 36.

36. Monitor the OBD STATUS for DTC P0452 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - If the ECM was updated, troubleshooting is complete. If the ECM was substituted, replace the original ECM (see **ECM REPLACEMENT**). If any

other Temporary DTCs or DTCs were indicated in step 35, go to the indicated DTC's troubleshooting.

NO - If the screen indicates **FAILED**, check for poor connections or loose terminals at the FTP sensor and the ECM. If the ECM was updated, substitute a known-good ECM (see **SUBSTITUTING THE ECM**), then go to step 34. If the ECM was substituted, go to step 1. If the screen indicates **NOT COMPLETED**, keep idling until a result comes on.

DTC P0453: FTP SENSOR CIRCUIT HIGH VOLTAGE

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF.
4. Remove the fuel fill cap.
5. Turn the ignition switch ON (II).
6. Check the FTP SENSOR in the DATA LIST with the HDS.

Is about 7.3 kPa (2.16 in.Hg, 55 mmHg), or 4.7 V or more indicated?

YES - Go to step 10.

NO - Go to step 7.

7. Install the fuel fill cap.
8. Start the engine.
9. Monitor the OBD STATUS for DTC P0453 in the DTCs MENU with the HDS.

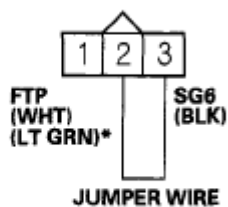
*Does the screen indicate **FAILED**?*

YES - Go to step 10.

NO - If the screen indicates PASSED, intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor and the ECM. If the screen indicates NOT COMPLETED, go to step 6 and recheck.

10. Turn the ignition switch OFF.
11. Disconnect the FTP sensor 3P connector.
12. Connect FTP sensor 3P connector terminals No. 2 and No. 3 with a jumper wire.

FTP SENSOR 3P CONNECTOR



Wire side of female terminals

*: 4-door

Fig. 12: Connecting FTP Sensor 3P Connector Terminals No. 2 And 3 With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

13. Turn the ignition switch ON (II).
14. Check the FTP SENSOR in the DATA LIST with the HDS.

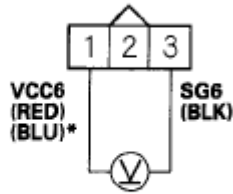
Is about 7.3 kPa (2.16 in.Hg, 55 mmHg), or 4.7 V or more indicated?

YES - Go to step 15.

NO - Go to step 26.

15. Measure voltage between FTP sensor 3P connector terminals No. 1 and No. 3.

FTP SENSOR 3P CONNECTOR



Wire side of female terminals

*: 4-door

Fig. 13: Measuring Voltage Between FTP Sensor 3P Connector Terminals No. 1 And 3

Courtesy of AMERICAN HONDA MOTOR CO., INC.

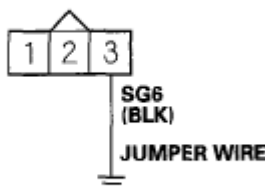
Is there about 5 V?

YES - Go to step 21.

NO - Go to step 16.

16. Turn the ignition switch OFF.
17. Jump the SCS line with the HDS.
18. Disconnect ECM connector A (44P).
19. Connect FTP sensor 3P connector terminal No. 3 to body ground with a jumper wire.

FTP SENSOR 3P CONNECTOR



Wire side of female terminals

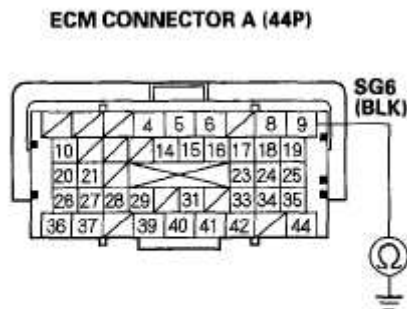
Fig. 14: Connecting FTP Sensor 3P Connector Terminal No. 3 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

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20. Check for continuity between ECM connector terminal A9 and body ground.



Terminal side of female terminals

Fig. 15: Checking Continuity Between ECM Connector Terminal A9 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 34.

NO - Repair open in the wire between the ECM (A9) and the FTP sensor, then go to step 28.

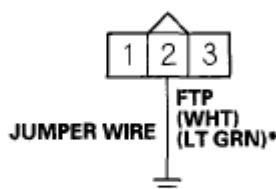
21. Turn the ignition switch OFF.

22. Jump the SCS line with the HDS.

23. Disconnect ECM connector A (44P).

24. Connect FTP sensor 3P connector terminal No. 2 to body ground with a jumper wire.

FTP SENSOR 3P CONNECTOR



Wire side of female terminals

*: 4-door

Fig. 16: Connecting FTP Sensor 3P Connector Terminal No. 2 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

25. Check for continuity between ECM connector terminal A26 and body ground.

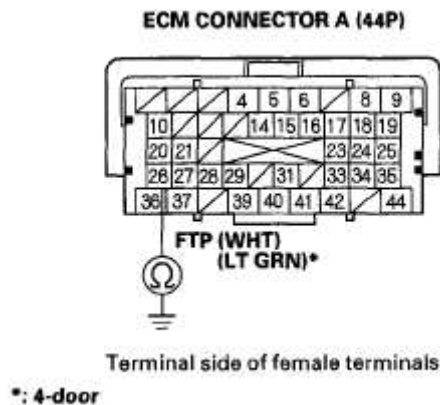


Fig. 17: Checking Continuity Between ECM Connector Terminal A26 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 34.

NO - Repair open in the wire between the ECM (A26) and the FTP sensor, then go to step 28.

26. Turn the ignition switch OFF.
27. Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**).
28. Reconnect all connectors.
29. Turn the ignition switch ON (II).
30. Reset the ECM with the HDS.
31. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
32. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0453 indicated?

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YES - Check for poor connections or loose terminals at the FTP sensor and the ECM, then go to step 1.

NO - Go to step 33.

33. Monitor the OBD STATUS for DTC P0453 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 32, go to the indicated DTC's troubleshooting.

NO - If the screen indicates FAILED, check for poor connections or loose terminals at the FTP sensor and the ECM, then go to step 1. If the screen indicates NOT COMPLETED, keep idling until a result comes on.

34. Reconnect all connectors.
35. Update the ECM if it does not have the latest software (see **UPDATING THE ECM**), or substitute a known-good ECM (see **SUBSTITUTING THE ECM**).
36. Start the engine, and let it idle.
37. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0453 indicated?

YES - Check for poor connections or loose terminals at the FTP sensor and the ECM. If the ECM was updated, substitute a known-good ECM (see **SUBSTITUTING THE ECM**), then go to step 36. If the ECM was substituted, go to step 1.

NO - Go to step 38.

38. Monitor the OBD STATUS for DTC P0453 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - If the ECM was updated, troubleshooting is complete. If the ECM was substituted, replace the original ECM (see **ECM REPLACEMENT**). If any other Temporary DTCs or DTCs were indicated in step 37, go to the indicated DTC's troubleshooting.

NO - If the screen indicates **FAILED**, check for poor connections or loose terminals at the FTP sensor and the ECM. If the ECM was updated, substitute a known-good ECM (see **SUBSTITUTING THE ECM**), then go to step 36. If the ECM was substituted, go to step 1. If the screen indicates **NOT COMPLETED**, keep idling until a result comes on.

DTC P0455: EVAP SYSTEM LARGE LEAK DETECTED; DTC P0456: EVAP SYSTEM VERY SMALL LEAK DETECTED

NOTE: **The fuel system is designed to allow specified maximum vacuum and pressure conditions. Do not deviate from the vacuum and pressure tests as indicated in these procedures. Excessive pressure/vacuum would damage the EVAP components or cause eventual fuel tank failure.**

Special Tools Required

Vacuum pump/gauge, 0-30 in.Hg, Snap-on YA4000A or equivalent, commercially available

- NOTE:**
- **Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).**
 - **Fresh fuel has a higher volatility that will create greater pressure/vacuum. The optimum condition for testing is less than a full tank of fresh fuel. If possible, to assist in leak detection, add 1 gallon of fresh fuel to the tank (as long as it will not fill the tank), just before starting these procedures.**

1. Check the fuel fill cap (the cap must say "TIGHTEN TO CLICK"). It should turn 1/4 turn after it's tight, then it clicks.

Is the correct fuel fill cap installed and properly tightened?

YES - Go to step 2.

NO - Replace or tighten the cap, then go to step 22.

2. Check the fuel fill cap seal (A) and the fuel fill pipe mating surface (B). Verify that the fuel fill cap tether cord (C) is not caught under the cap.

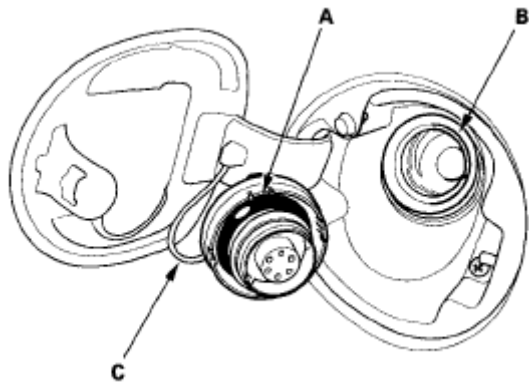


Fig. 18: Checking Fill Cap Seal And Fuel Fill Pipe Mating Surface
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is the fuel fill cap seal missing or damaged, is the fuel fill pipe damaged, or is the tether cord caught under the cap?

YES - Replace the fuel fill cap or the fuel fill pipe, then go to step 22.

NO - Go to step 3.

3. Turn the ignition switch ON (II).
4. Clear the DTC with the HDS.
5. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES - Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor, the EVAP canister purge valve, or the EVAP canister vent shut valve and the ECM.

NO - Go to step 6.

6. Turn the ignition switch OFF.
7. Check for a poor connection or damage at the fuel tank vapor recirculation tube.

Is the tube OK?

YES - Go to step 8.

NO -

- Replace the fuel tank vapor recirculation tube, then go to step 22.
 - If necessary, replace the fuel tank (see **FUEL TANK REPLACEMENT**), then go to step 22.
8. Disconnect the fuel tank vapor recirculation tube (A) from the EVAP canister (B), and plug the EVAP canister port (C).

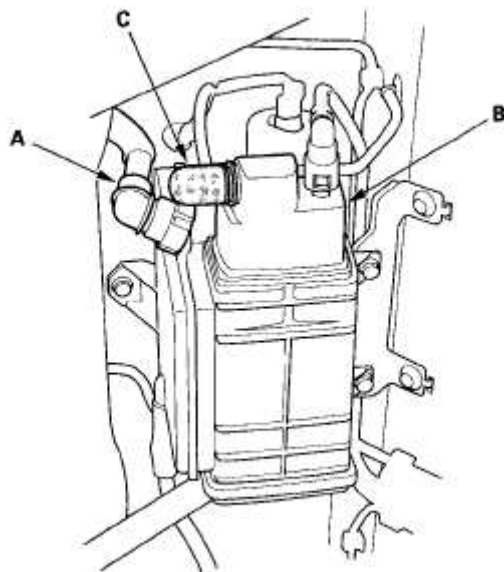
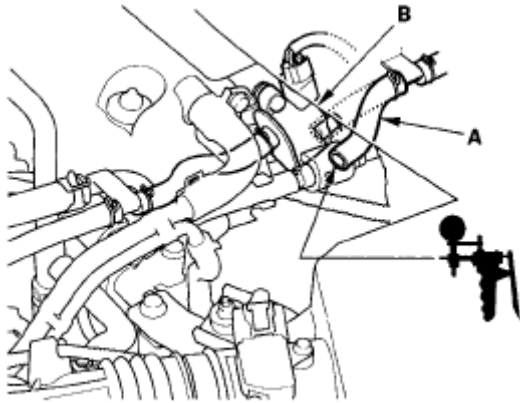


Fig. 19: Disconnecting Fuel Tank Vapor Recirculation Tube From EVAP Canister

Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Disconnect the vacuum hose (purge line) (A) from the EVAP canister purge valve (B) in the engine compartment, and connect a vacuum pump/gauge, 0-30 in.Hg, to the vacuum hose as shown.

**Fig. 20: Disconnecting Vacuum Hose (Purge Line)****Courtesy of AMERICAN HONDA MOTOR CO., INC.**

10. Turn the ignition switch ON (II).
11. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
12. Apply vacuum to the hose until the FTP reads 1.90 V (-0.59 in.Hg, -15.1 mmHg).

NOTE: Be careful not to exceed the pressure. If you exceed the pressure, the FTP sensor can be damaged.

13. Monitor the FTP SENSOR in the DATA LIST for 1 minute with the HDS.

Does the voltage increase more than 0.2 V (0.1 in.Hg, 0.5 mmHg)?

YES - Go to step 14.

NO - Go to step 19.

14. Select EVAP CVS OFF in the INSPECTION MENU with the HDS.
15. Disconnect the fresh air hose (A) from the EVAP canister (B), and plug the

EVAP canister port (C).

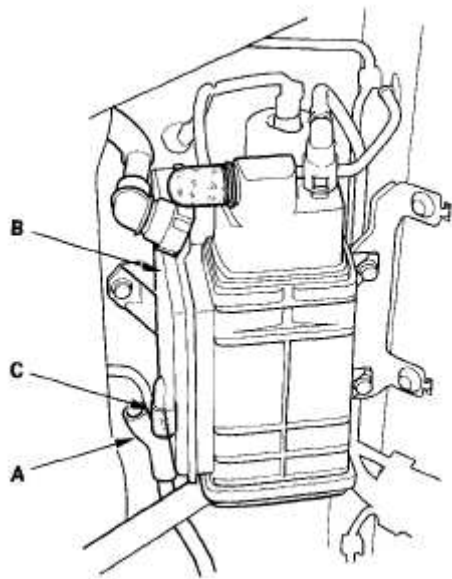


Fig. 21: Disconnecting Fresh Air Hose From EVAP Canister
Courtesy of AMERICAN HONDA MOTOR CO., INC.

16. Apply vacuum to the EVAP system until the FTP reads 1.90 V (-0.59 in.Hg, -15.1 mmHg).

NOTE: Be careful not to exceed the pressure. If you exceed the pressure, the FTP sensor can be damaged.

17. Monitor the FTP SENSOR in the DATA LIST for 1 minute with the HDS.

Does the voltage increase more than 0.2 V (0.1 in.Hg, 2.5 mmHg)?

YES - Go to step 18.

NO - Replace the EVAP canister vent shut valve, then go to step 21.

18. Check for a loose or damaged EVAP canister purge line between the EVAP canister and the EVAP canister purge valve.

Is the line OK?

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YES - Replace these parts, then go to step 21:

- FTP sensor O-ring
- EVAP canister vent shut valve case and O-ring
- EVAP canister

NO - Reconnect or repair the EVAP canister purge hose, then go to step 21.

19. Select EVAP CVS OFF in the INSPECTION MENU with the HDS.

20. Check these parts for looseness or damage:

- Fuel fill pipe
- Fuel vapor return pipe

Are the parts OK?

YES - Check the fuel tank unit base gasket (see **FUEL TANK REPLACEMENT**), and check the fuel tank, then go to step 21.

NO - Repair or replace the damaged parts, then go to step 21.

21. Reconnect all hoses and connectors.

22. Turn the ignition switch ON (II).

23. Reset the ECM with the HDS.

24. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).

25. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES - Troubleshooting is complete.

NO - Check for poor connections or loose terminals at the FTP sensor, the EVAP canister purge valve, the EVAP canister vent shut valve, and the ECM, then go to step 1.

DTC P0457: EVAP SYSTEM LEAK DETECTED/FUEL FILL CAP LOOSE OR MISSING

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).

1. Check the fuel fill cap (the cap must say "TIGHTEN TO CLICK"). It should turn 1/4 turn after it's tight, then it clicks.

Is the correct fuel fill cap installed and properly tightened?

YES - Go to step 2.

NO - Replace or tighten the cap, then go to step 19.

2. Check the fuel fill cap seal (A) and the fuel fill pipe mating surface (B). Verify that the fuel fill cap tether cord (C) is not caught under the cap.

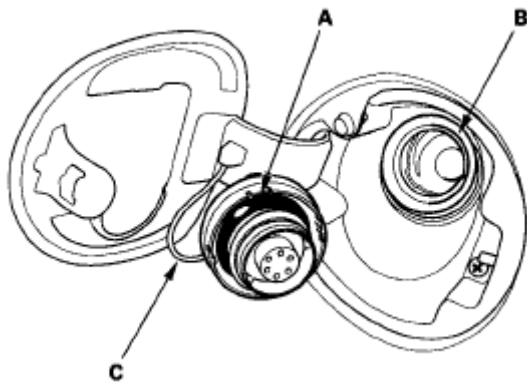


Fig. 22: Checking Fuel Fill Cap Seal And Fuel Fill Pipe Mating Surface
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is the fuel fill cap seal missing or damaged, is the fuel fill pipe damaged, or is the tether cord caught under the cap?

YES - Replace the fuel fill cap or the fuel fill pipe, then go to step 19.

NO - Go to step 3.

3. Turn the ignition switch ON (II).

4. Clear the DTC with the HDS.
5. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES - Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor, or the EVAP canister vent shut valve, and the ECM.

NO - Go to step 6.

6. Turn the ignition switch OFF.
7. Remove the EVAP canister vent shut valve from the EVAP canister (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**).
8. Connect the 2P connector to the EVAP canister vent shut valve.
9. Turn the ignition switch ON (II).
10. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
11. Check the EVAP canister vent shut valve (A) operation.



Fig. 23: Checking EVAP Canister Vent Shut Valve Operation
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Does the valve operate?

YES - Check the routing of the EVAP canister vent tube, then go to step 18.

NO - Go to step 12.

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12. Turn the ignition switch OFF.
13. Replace the EVAP canister vent shut valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**).
14. Turn the ignition switch ON (II).
15. Reset the ECM with the HDS.
16. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
17. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES - Troubleshooting is complete.

NO - Check for poor connections or loose terminals at the FTP sensor, the EVAP canister vent shut valve, and the ECM, then go to step 1.

18. Reinstall the EVAP canister vent shut valve.
19. Turn the ignition switch ON (II).
20. Reset the ECM with the HDS.
21. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
22. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES - Troubleshooting is complete.

NO - Check for poor connections or loose terminals at the FTP sensor, the EVAP canister vent shut valve, and the ECM, then go to step 1.

DTC P0496: EVAP SYSTEM HIGH PURGE FLOW DETECTED

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).

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1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES - Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor, the EVAP canister purge valve, the EVAP canister vent shut valve, and the ECM.

NO - Go to step 4.

4. Turn the ignition switch OFF.
5. Replace the EVAP canister purge valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**).
6. Turn the ignition switch ON (II).
7. Reset the ECM with the HDS.
8. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
9. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES - Troubleshooting is complete.

NO - Check for poor connections or loose terminals at the FTP sensor, the EVAP canister purge valve, the EVAP canister vent shut valve, and the ECM, then go to step 1.

DTC P0497: EVAP SYSTEM LOW PURGE FLOW DETECTED ('06 MODEL)

Special Tools Required

- Vacuum/pressure gauge, 0-4 in.Hg, 07JAZ-001000B
- Vacuum pump/gauge, 0-30 in.Hg, Snap-on YA4000A or equivalent, commercially available

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).

1. Check the fuel fill cap installation (The cap must say "TIGHTEN TO CLICK". The cap should tighten 1/4 turn after it is tight.).

Is the fuel fill cap installed and properly tightened?

YES - Go to step 2.

NO - Properly install the fuel fill cap, then go to step 23.

2. Turn the ignition switch ON (II).
3. Clear the DTC with the HDS.
4. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES - Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor, the EVAP canister purge valve, or the EVAP canister vent shut valve and the ECM.

NO - Go to step 5.

5. Check for a loose or damaged EVAP canister purge line between the intake manifold and the EVAP canister purge valve.

Is the line OK?

YES - Go to step 6.

NO - Reconnect or repair the EVAP canister purge line, then go to step 23.

6. Disconnect the vacuum hose (A) from the EVAP canister purge valve (B) in the engine compartment, and connect a T-fitting (C) from the vacuum gauge

and the vacuum pump/gauge, 0-30 in.Hg, to the vacuum hose as shown.

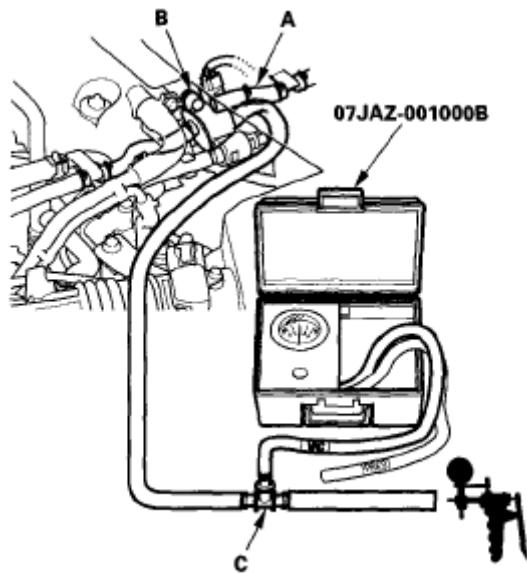


Fig. 24: Disconnecting Vacuum Hose From EVAP Canister Purge Valve In Engine Compartment

Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Select EVAP PCS ON in the INSPECTION MENU with the HDS.
8. Slowly apply about 0.6 in.Hg (15 mmHg) of vacuum to the hose.

Does it hold vacuum?

YES - Replace the EVAP canister purge valve, then go to step 22.

NO - Go to step 9.

9. Reconnect the vacuum hose to the EVAP canister purge valve.
10. Disconnect the vacuum hose from the purge line (at the EVAP canister side), and connect a T-fitting (A) from the vacuum gauge and the vacuum pump/gauge, 0-30 in.Hg, to the hose as shown.

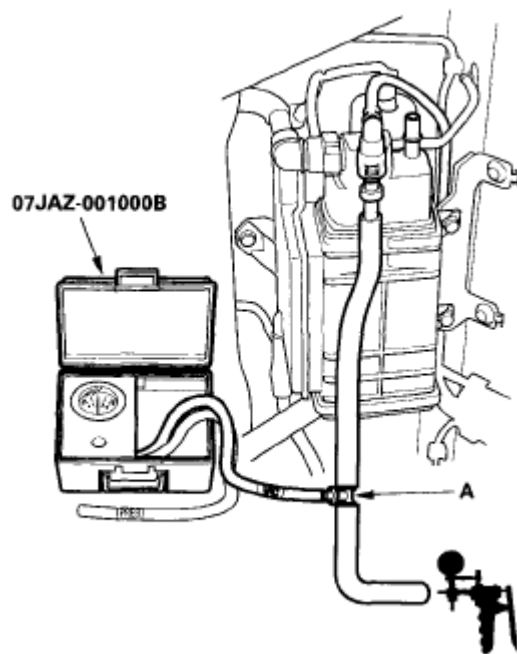


Fig. 25: Connecting T-Fitting From Vacuum Gauge And Vacuum Pump/Gauge To Hose
Courtesy of AMERICAN HONDA MOTOR CO., INC.

11. Select EVAP PCS ON in the INSPECTION MENU with the HDS.
12. Slowly apply about 2 kPa (0.6 in.Hg, 15 mmHg) of vacuum to the hose.

Does it hold vacuum?

YES - Check for a restricted EVAP canister purge line between the EVAP canister purge valve and the EVAP canister, then go to step 22.

NO - Go to step 13.

13. Remove the FTP sensor with its connector connected (see **FTP SENSOR REPLACEMENT**).
14. Connect a T-fitting (A) from the vacuum pump/gauge, 0-30 in.Hg, and the vacuum pump to the FTP sensor (B) as shown.

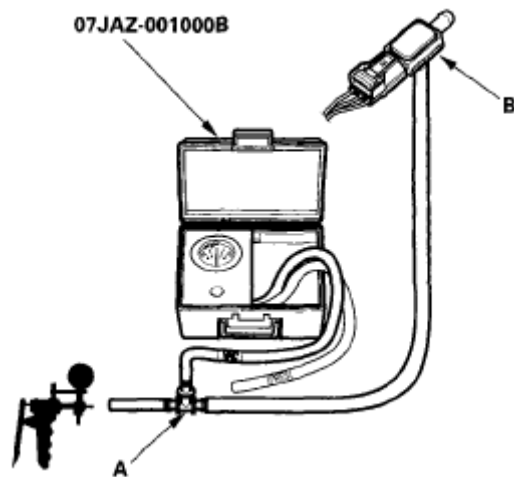


Fig. 26: Connecting T-Fitting From Vacuum Pump/Gauge And Vacuum Pump To FTP Sensor

Courtesy of AMERICAN HONDA MOTOR CO., INC.

15. Check and record the FTP SENSOR reading in the DATA LIST with the HDS.
16. Slowly apply about 1.3 kPa (0.4 in.Hg, 10 mmHg) of vacuum to the hose.
17. Check the FTP SENSOR in the DATA LIST with the HDS.

Is the difference more than 1.1 kPa (0.31 in.Hg, 8 mmHg) before and after applying vacuum?

YES - Go to step 18.

NO - Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**), then go to step 22.

18. Reconnect the vacuum hoses to the EVAP canister purge line (EVAP canister side), and reinstall the FTP sensor.
19. Disconnect the vacuum hose (purge line) (A) from the EVAP canister purge valve (B), and connect a T-fitting (C) from the vacuum gauge and the vacuum pump/gauge, 0-30 in.Hg, to the hose as shown.

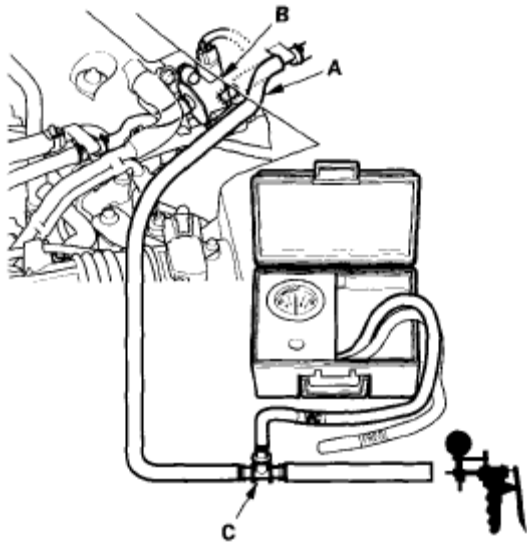


Fig. 27: Connecting T-Fitting From Vacuum Gauge And Vacuum Pump/Gauge To Hose

Courtesy of AMERICAN HONDA MOTOR CO., INC.

20. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
21. Slowly apply about 2 kPa (0.6 in.Hg, 15 mmHg) of vacuum to the hose.

Does the hose hold vacuum?

YES - Check for blockage at the EVAP canister port, then go to step 22.

NO - Replace the EVAP canister vent shut valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**), then go to step 22.

22. Reconnect all hoses.
23. Turn the ignition switch ON (II).
24. Reset the ECM with the HDS.
25. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
26. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES - Troubleshooting is complete.

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NO - Check for poor connections or loose terminals at the FTP sensor, the EVAP canister purge valve, the EVAP canister vent shut valve, and the ECM, then go to step 1.

DTC P0497: EVAP SYSTEM LOW PURGE FLOW DETECTED ('07 MODEL)

Special Tools Required

- Vacuum/pressure gauge, 0-4 in.Hg 07JAZ-001000B
- Vacuum pump/gauge, 0-30 in.Hg, Snap-on YA4000A or equivalent, commercially available

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES - Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor and the ECM.

NO - Go to step 4.

4. Turn the ignition switch OFF.
5. Check for poor connection, blockage, or damage at the EVAP canister purge line between the throttle body and the EVAP canister.

Is the line OK?

YES - Go to step 5.

NO - Reconnect or repair the EVAP canister purge line, then go to step 24.

6. Disconnect the vacuum hose (A) from the EVAP canister purge valve (B).

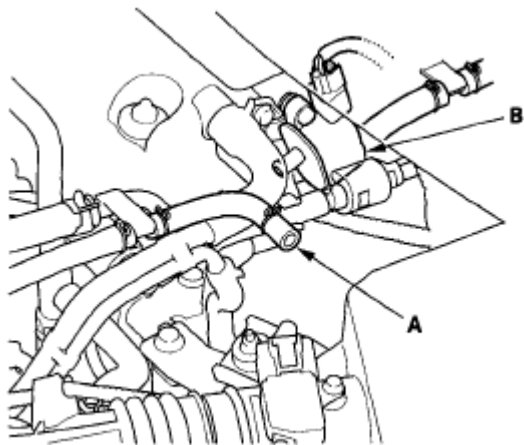


Fig. 28: Disconnecting Vacuum Hose From EVAP Canister Purge Valve
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Disconnect the vacuum hose from the purge line (at the EVAP canister side), and connect a T-fitting (A) from the vacuum gauge and the vacuum pump/gauge, 0-30 in.Hg, to the hose as shown.

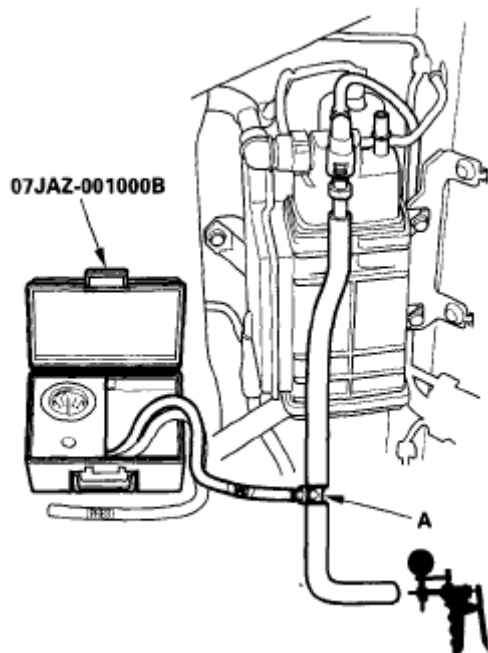


Fig. 29: Connecting T-Fitting From Vacuum Gauge And Vacuum Pump/Gauge To Hose

Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Apply about 2 kPa (0.6 in.Hg, 15 mmHg) of vacuum to the hose.
9. Select EVAP PCS ON in the INSPECTION MENU with the HDS.

Does the vacuum release momentary?

YES - Go to step 14.

NO - Go to step 10.

10. Select EVAP PCS OFF in the INSPECTION MENU with the HDS.
11. Disconnect the vacuum hose (A) from the EVAP canister purge valve (B). Connect a T-fitting (C) from the vacuum gauge and the vacuum pump/gauge, 0-30 in.Hg, and the EVAP canister purge valve as shown.

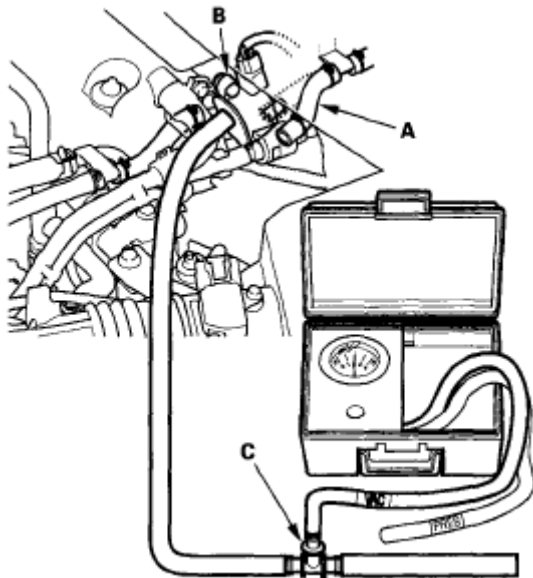


Fig. 30: Connecting T-Fitting From Vacuum Gauge And Vacuum Pump/Gauge And EVAP Canister Purge Valve
Courtesy of AMERICAN HONDA MOTOR CO., INC.

12. Apply about 2 kPa (0.6 in.Hg, 15 mmHg) of vacuum to the hose.
13. Select EVAP PCS ON in the INSPECTION MENU with the HDS.

Does the vacuum release momentary?

YES - Check for blockage in the EVAP canister purge line between the EVAP canister purge valve and the EVAP canister, then go to step 24.

NO - Replace the EVAP canister purge valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**), then go to step 24.

14. Connect the vacuum pump/gauge, 0-30 in.Hg, to the vacuum hose (A) as shown.

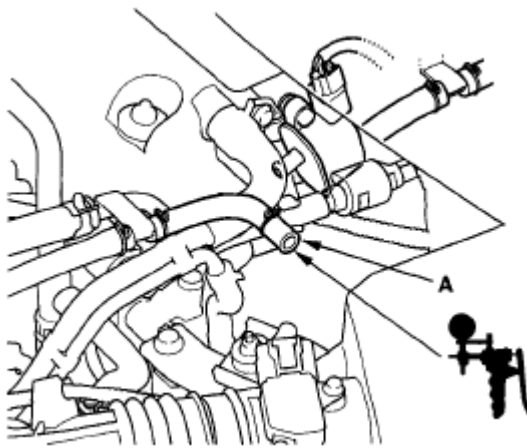


Fig. 31: Connecting Vacuum Pump/Gauge To Vacuum Hose
Courtesy of AMERICAN HONDA MOTOR CO., INC.

15. Start the engine, and let it idle.

Is there vacuum?

YES - Go to step 16.

NO - Check for blockage at the EVAP purge line between the throttle body and the EVAP canister purge valve, then go to step 24.

16. Turn the ignition switch OFF.
17. Remove the FTP sensor with its connector connected (see **FTP SENSOR REPLACEMENT**).
18. Connect a T-fitting (A) from the vacuum pump/gauge, 0-30 in.Hg, and the vacuum pump, to the FTP sensor (B) as shown.

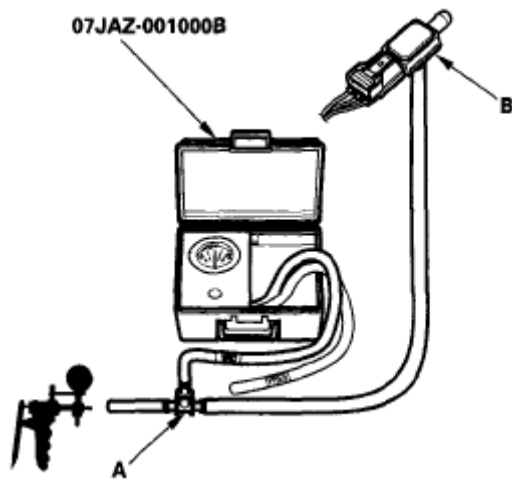


Fig. 32: Identifying T-Fitting And FTP Sensor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

19. Turn the ignition switch ON (II).
20. Check and record the FTP SENSOR reading in the DATA LIST with the HDS.
21. Slowly apply about 1.3 kPa (0.4 in.Hg, 10 mmHg) of vacuum to the hose.
22. Check the FTP SENSOR in the DATA LIST with the HDS.

Does the value change?

YES - Check for debris or blockage at the EVAP canister port, then go to step 24.

NO - Go to step 23.

23. Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**).
24. Reconnect all hoses.
25. Turn the ignition switch ON (II).
26. Reset the ECM with the HDS.
27. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
28. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

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YES - Troubleshooting is complete.

NO - Check for poor connections or loose terminals at the FTP sensor and the ECM, then go to step 1.

DTC P0498: EVAP CANISTER VENT SHUT VALVE CIRCUIT LOW VOLTAGE

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0498 indicated?

YES - Go to step 6.

NO - Go to step 4.

4. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
5. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0498 indicated?

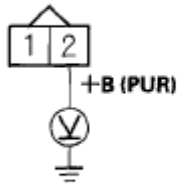
YES - Go to step 6.

NO - Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM.

6. Turn the ignition switch OFF.
7. Disconnect the EVAP canister vent shut valve 2P connector.
8. Turn the ignition switch ON (II).
9. Measure voltage between EVAP canister vent shut valve 2P connector terminal

No. 2 and body ground.

EVAP CANISTER VENT SHUT VALVE
2P CONNECTOR



Wire side of female terminals

Fig. 33: Measuring Voltage Between EVAP Canister Vent Shut Valve 2P Terminal No. 2 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

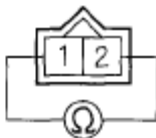
YES - Go to step 10.

NO - Repair open in the wire between the EVAP canister vent shut valve and the PGM-FI subrelay, then go to step 18.

10. Turn the ignition switch OFF.

11. At the valve side, measure resistance between EVAP canister vent shut valve 2P connector terminals No. 1 and No. 2.

EVAP CANISTER VENT SHUT VALVE
2P CONNECTOR



Terminal side of male terminals

Fig. 34: Measuring Resistance Between EVAP Canister Vent Shut Valve 2P Connector Terminals No. 1 And 2

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 25-30 Ω , at room temperature?

YES - Go to step 12.

NO - Go to step 17.

12. Jump the SCS line with the HDS.
13. Disconnect ECM connector A (44P).
14. Check for continuity between ECM connector terminal A10 and body ground.

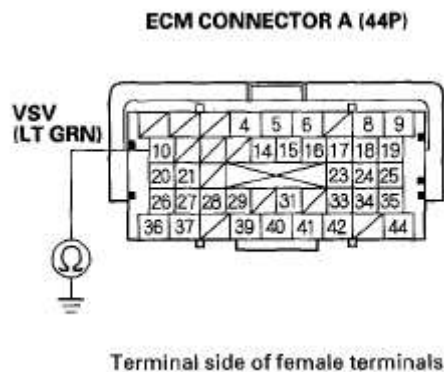


Fig. 35: Checking Continuity Between ECM Connector Terminal A10 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short in the wire between the EVAP canister vent shut valve and the ECM (A10), then go to step 18.

NO - Go to step 15.

15. Connect EVAP canister vent shut valve 2P connector terminal No. 1 to body ground with a jumper wire.

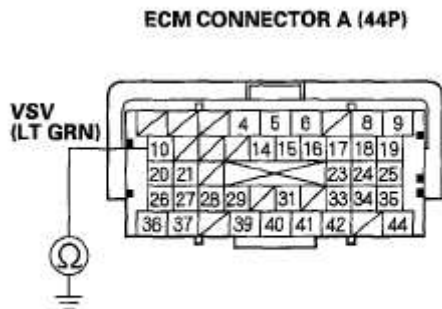
**EVAP CANISTER VENT SHUT VALVE
2P CONNECTOR**



Wire side of female terminals

Fig. 36: Connecting EVAP Canister Vent Shut Valve 2P Terminal No. 1 To Body Ground With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

16. Check for continuity between ECM connector terminal A10 and body ground.



Terminal side of female terminals

Fig. 37: Checking Continuity Between ECM Connector Terminal A10 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 25.

NO - Repair open in the wire between the EVAP canister vent shut valve and the ECM (A10), then go to step 18.

17. Replace the EVAP canister vent shut valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**).
18. Reconnect all connectors.

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19. Turn the ignition switch ON (II).
20. Reset the ECM with the HDS.
21. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
22. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
23. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0498 indicated?

YES - Check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM, then go to step 1.

NO - Go to step 24.

24. Monitor the OBD STATUS for DTC P0498 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - Troubleshooting is complete. If any other Temporary DTCs or DTSs were indicated in step 23, go to the indicated DTC's troubleshooting.

NO - If the screen indicates FAILED, check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM, then go to step 1. If the screen indicates NOT COMPLETED, go to step 22.

25. Reconnect all connectors.
26. Update the ECM if it does not have the latest software (see **UPDATING THE ECM**), or substitute a known-good ECM (see **SUBSTITUTING THE ECM**).
27. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
28. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0498 indicated?

YES - Check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM. If the ECM was updated, substitute a known-

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good ECM (see **SUBSTITUTING THE ECM**), then go to step 27. If the ECM was substituted, go to step 1.

NO - Go to step 29.

29. Monitor the OBD STATUS for DTC P0498 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - If the ECM was updated, troubleshooting is complete. If the ECM was substituted, replace the original ECM (see **ECM REPLACEMENT**). If any other Temporary DTCs or DTCs were indicated in step 28, go to the indicated DTC's troubleshooting.

NO - If the screen indicates FAILED, check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM. If the ECM was updated, substitute a known-good ECM (see **SUBSTITUTING THE ECM**), then go to step 27. If the ECM was substituted, go to step 1. If the screen indicates NOT COMPLETED, go to step 27.

DTC P0499: EVAP CANISTER VENT SHUT VALVE CIRCUIT HIGH VOLTAGE

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
4. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0499 indicated?

YES - Go to step 5.

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NO - Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM.

5. Update the ECM if it does not have the latest software (see **UPDATING THE ECM**), or substitute a known-good ECM (see **SUBSTITUTING THE ECM**).
6. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
7. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0499 indicated?

YES - Check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM. If the ECM was updated, substitute a known-good ECM (see **SUBSTITUTING THE ECM**), then go to step 6. If the ECM was substituted, go to step 1.

NO - Go to step 8.

8. Monitor the OBD STATUS for DTC P0499 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - If the ECM was updated, troubleshooting is complete. If the ECM was substituted, replace the original ECM (see **ECM REPLACEMENT**). If any other Temporary DTCs or DTCs were indicated in step 7, go to the indicated DTC's troubleshooting.

NO - If the screen indicates FAILED, check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM. If the ECM was updated, substitute a known-good ECM (see **SUBSTITUTING THE ECM**), then go to step 6. If the ECM was substituted, go to step 1. If the screen indicates NOT COMPLETED, go to step 6.

DTC P1454: FTP SENSOR RANGE/PERFORMANCE PROBLEM; DTC P2422: EVAP CANISTER VENT SHUT VALVE STUCK CLOSED MALFUNCTION

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF.
4. Remove the fuel fill cap, and wait 1 minute.
5. Check the FTP SENSOR in the DATA LIST with the HDS.

Is it between - 0.67 and 0.67 kPa (- 0.2 and 0.2 in.Hg, - 5 and 5 mmHg), or 2.4 and 2.6 V?

YES - Go to step 6.

NO - Go to step 17.

6. Install the fuel fill cap.
7. Clear the DTC with the HDS.
8. Start the engine. Hold the engine speed at 3,000 rpm without load (in neutral) until the radiator fan comes on, then let it idle.
9. Monitor the OBD STATUS for DTC P1454 in the DTCs MENU with the HDS.

Does the screen indicate FAILED?

YES - Go to step 10.

NO - If the screen indicates PASSED, intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor, the EVAP canister vent shut valve, and the ECM. Also check for a blockage in the vent hoses and the drain joint. If the screen indicates NOT COMPLETED, keep idling until a result comes on.

10. Clear the DTC with the HDS.

11. Turn the ignition switch OFF.
12. Remove the EVAP canister vent shut valve from the EVAP canister (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**).
13. Connect the 2P connector to the EVAP canister vent shut valve.
14. Turn the ignition switch ON (II).
15. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
16. Check the EVAP canister vent shut valve (A) operation.



Fig. 38: Checking EVAP Canister Vent Shut Valve Operation
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Does the valve operate?

YES - Check for a blockage in the EVAP canister, vent hoses, and drain joint, then install the EVAP canister vent shut valve, and go to step 23.

NO - Replace the EVAP canister vent shut valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**), then go to step 23.

17. Disconnect the air tube (A) from the FTP sensor (B).

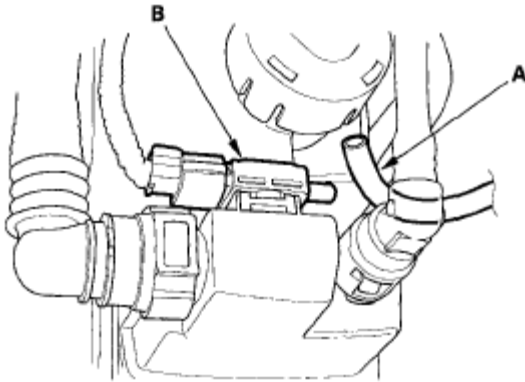


Fig. 39: Disconnecting Air Tube From FTP Sensor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

18. Check the FTP SENSOR in the DATA LIST with the HDS.

Is it between - 0.67 and 0.67 kPa (- 0.2 and 0.2 in.Hg, - 5 and 5 mmHg), or 2.4 and 2.6 V?

YES - Check for a blockage in the FTP sensor air tube or vent, then go to step 23.

NO - Go to step 19.

19. Turn the ignition switch OFF.
20. Remove the FTP sensor (A) from the EVAP canister with its connector connected (see **EVAP CANISTER REPLACEMENT**).

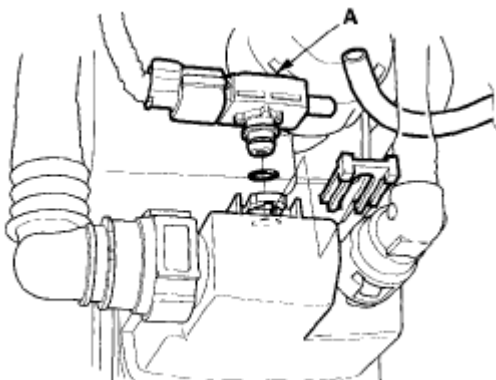


Fig. 40: Removing FTP Sensor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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21. Turn the ignition switch ON (II).
22. Check the FTP SENSOR in the DATA LIST with the HDS.

Is it between - 0.67 kPa and 0.67 kPa (- 0.2 and 0.2 in.Hg, - 5 and 5 mmHg), or 2.4 and 2.6 V?

YES - Check for debris or clogging at the EVAP canister and the FTP sensor port, then go to step 23.

NO - Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**), then go to step 23.

23. Turn the ignition switch ON (II).
24. Reset the ECM with the HDS.
25. Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).
26. Start the engine. Hold the engine speed at 3,000 rpm without load (in neutral) until the radiator fan comes on, then let it idle.
27. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P1454 and/or P2422 indicated?

YES - Check for poor connections or loose terminals at the FTP sensor, the EVAP canister vent shut valve, and the ECM, then go to step 1.

NO - Go to step 28.

28. Monitor the OBD STATUS for DTC P1454 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES - Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 27, go to the indicated DTC's troubleshooting.

NO - If the screen indicates FAILED, check for poor connections or loose terminals at the FTP sensor, the EVAP canister vent shut valve, and the ECM, then go to step 1. If the screen indicates NOT COMPLETED, keep idling until

a result comes on.

DTC P145C: EVAP SYSTEM PURGE FLOW MALFUNCTION ('07 MODEL)

NOTE:

- **Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).**
- **If DTC P145C is indicated alone, do the troubleshooting for DTC P0496 and P0497 using freeze data for P145C.**
- **If any of the DTCs listed below are indicated at the same time as DTC P145C, troubleshoot those DTC first, then recheck for P145C:**

P0496, P0497: EVAP system purge flow

FUEL CAP WARNING MESSAGE SYSTEM TROUBLESHOOTING

Special Tools Required

- Vacuum/pressure gauge, 0-4 in.Hg 07JAZ-001000B
- Vacuum pump/gauge, 0-30 in.Hg, Snap-on YA4000A or equivalent, commercially available

When the fuel cap warning message does not go off after fuel cap tightened, or the message turned on frequently, do this troubleshooting procedure.

'07-08 model

1. Check the fuel fill cap (the cap must say "TIGHTEN TO CLICK"). It should turn 1/4 after it's tight, then it clicks.

Is the correct fuel fill cap installed and properly tightened?

YES - Go to step 2.

NO - Replace or tighten the cap, then go to step 13.

2. Check the fuel fill cap seal (A) and the fuel fill pipe mating surface (B). Verify that the fuel fill cap tether cord (C) is not caught under the cap.

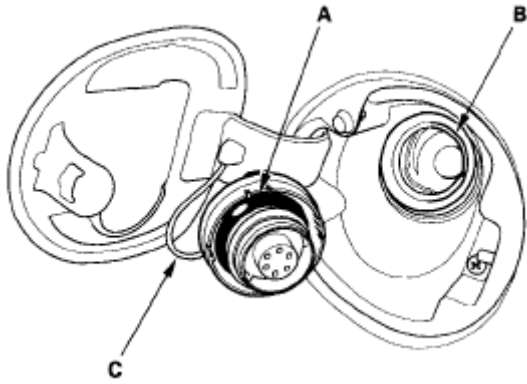


Fig. 41: Checking Fuel Fill Cap Seal And Fuel Fill Pipe Mating Surface
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is the fuel fill cap seal missing or damaged, is the fuel fill pipe damaged, or is the tether cord caught under the cap?

YES - Replace the fuel fill cap or the fuel fill pipe, then go to step 13.

NO - Go to step 3.

3. Reinstall and tighten the fuel fill cap.
4. Clear the DTC with the HDS.
5. Start the engine. Hold the engine speed at 3,000 rpm without load (in Park or neutral) until the radiator fan comes on, then let it idle for 1 minute.
6. Test drive at 45 mph (72 km/h) for 1 minute or more.

Does fuel cap warning message come on?

YES - Go to step 7.

NO - Intermittent failure, the system is OK at this time.

7. Turn the ignition switch OFF.
8. Disconnect the vacuum hose (A) from the EVAP canister purge valve (B) in the engine compartment, and connect a T-fitting (C) from the vacuum gauge

and the vacuum pump/gauge 0-30 in.Hg, to the EVAP canister purge valve as shown.

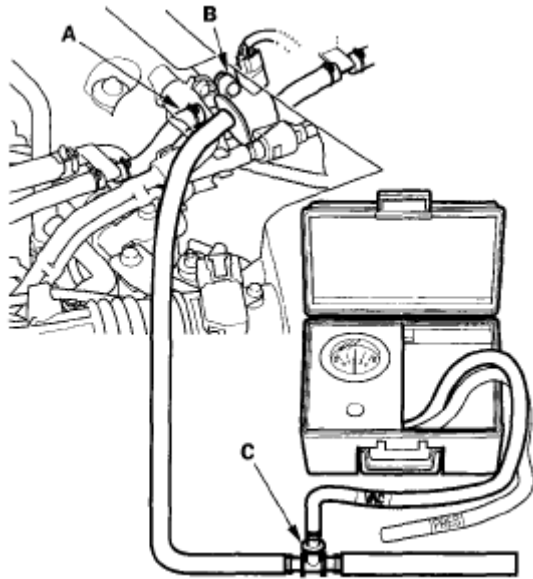


Fig. 42: Connecting T-Fitting From Vacuum Gauge And Vacuum Pump/Gauge To EVAP Canister Purge Valve
Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Turn the ignition switch ON (II).
10. Apply about 2 kPa (0.6 in.Hg, 15 mmHg) of vacuum to the hose.
11. Select the EVAP PCS ON in the INSPECTION MENU with the HDS.

Does the vacuum release momentary?

YES - Check for blockage at the EVAP canister purge line between EVAP canister purge valve and the EVAP canister, then go to step 12.

NO - Replace the EVAP canister purge valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**), then go to step 12.

12. Reconnect all hoses.
13. Turn the ignition switch ON (II).
14. Reset the PCM with the HDS.
15. Do the PCM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).

16. Start the engine. Hold the engine speed at 3,000 rpm without load (in Park or neutral) until a radiator fan comes on, then let it idle for 1 minute.
17. Test drive at 45 mph (72 km/h) for 1 minute or more.

Does the fuel cap message come on?

YES - Go to step 1 and recheck.

NO - Troubleshooting is complete.

EVAP CANISTER REPLACEMENT

1. Remove the cover (A).

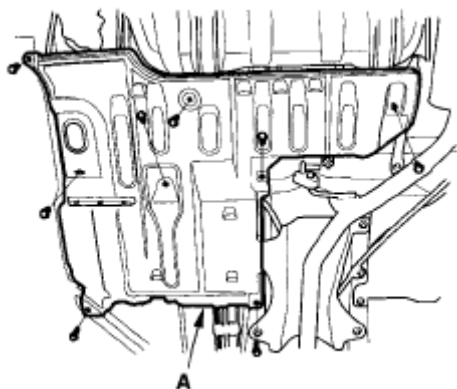


Fig. 43: Removing Cover

Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Remove the EVAP canister guard pipe (A).

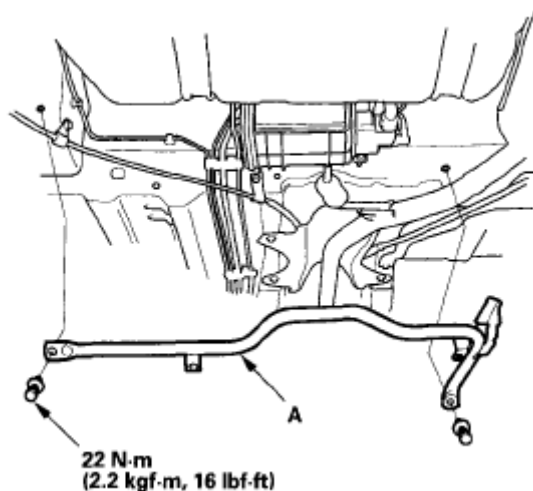


Fig. 44: Removing EVAP Canister Guard Pipe (With Specifications)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Remove the hoses (A), the FTP sensor connector (B), the EVAP canister vent shut valve connector (C) and the bolts (D).

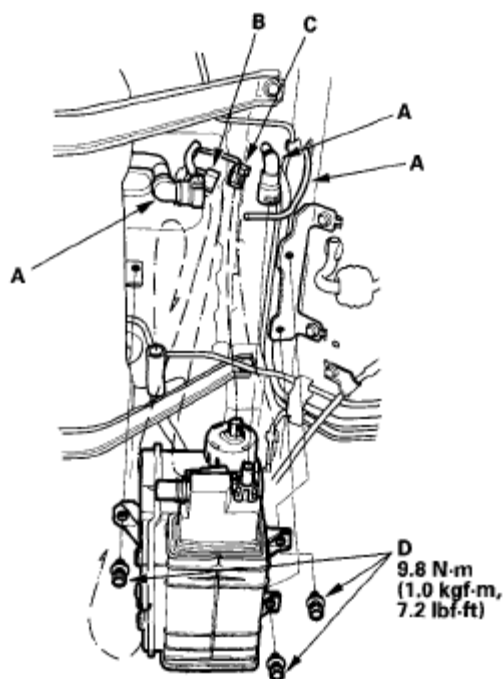


Fig. 45: Removing Hoses, FTP Sensor Connector, EVAP Canister Vent Shut Valve Connector And Bolts
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the EVAP canister.
5. Remove the cap (A).

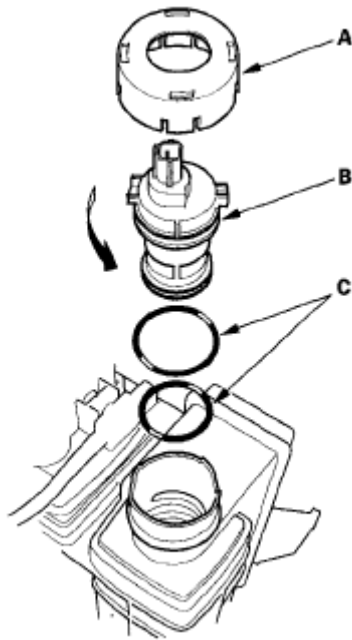


Fig. 46: Removing Cap

Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Remove the EVAP canister vent shut valve (B).
7. Install the EVAP canister vent shut valve on the new EVAP canister with new O-rings (C).

NOTE: Do not coat the O-rings with oil.

8. Install the parts in the reverse order of removal.

FTP SENSOR REPLACEMENT

1. Remove the cover (see step 1 in EVAP CANISTER REPLACEMENT).
2. Disconnect the FTP sensor connector (A).

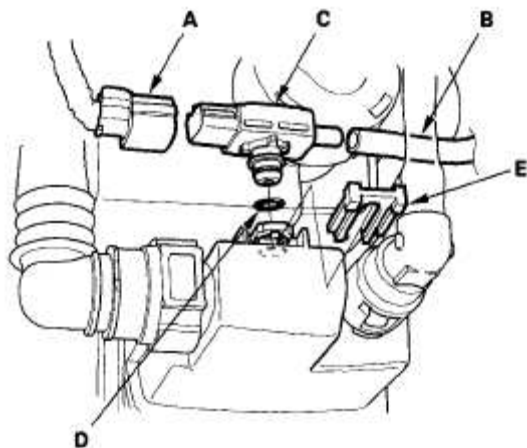


Fig. 47: Disconnecting FTP Sensor Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Disconnect the hose (B), and then remove the FTP sensor (C).
4. Install the parts in the reverse order of removal with a new O-ring (D) and a new retainer (E).

EVAP CANISTER VENT SHUT VALVE REPLACEMENT

1. Remove the EVAP canister (see **EVAP CANISTER REPLACEMENT**).
2. Remove the cap (A).

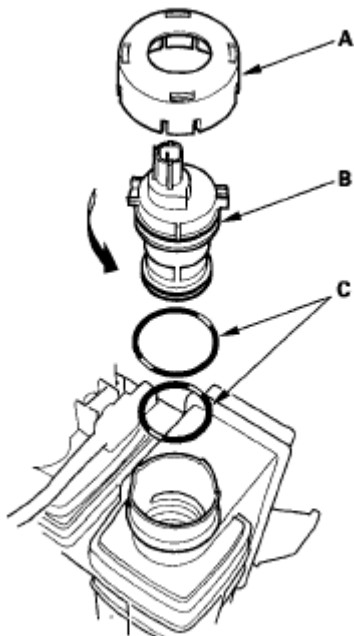


Fig. 48: Removing Cap

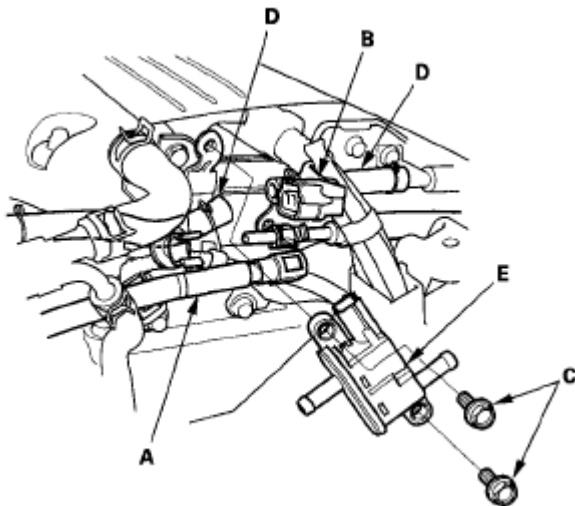
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Remove the EVAP canister vent shut valve (B).
4. Install the parts in the reverse order of removal with new O-rings (C) and a new cap (A).

NOTE: Do not coat the O-rings with oil.

EVAP CANISTER PURGE VALVE REPLACEMENT

1. Remove the intake manifold cover (see INTAKE MANIFOLD AND EXHAUST SYSTEM (K20Z3)).
2. Remove the air cleaner (see AIR CLEANER REMOVAL/INSTALLATION).
3. Relieve the fuel pressure (see FUEL PRESSURE RELIEVING).
4. Remove the fuel line (A).

**Fig. 49: Removing Fuel Line**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Disconnect the EVAP canister purge valve 2P connector (B).
6. Remove the bolts (C) and the hoses (D), then remove the EVAP canister purge valve (E).

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7. Install the parts in the reverse order of removal.